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| 10/658,603      | 09/10/2003  | Hwa-Sung Shin        | 1349.1258           | 1917             |

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| EXAMINER |
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MORRISON, THOMAS A

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| ART UNIT | PAPER NUMBER |
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3653

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 03/21/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/658,603

Applicant(s)

SHIN ET AL.

Examiner

Thomas A. Morrison

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16-18, 24 and 26-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-18, 24 and 26-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/28/2007 has been entered.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 32 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 32 recites, "wherein the second portion of the knock-up plate is an open portion so that the movement of the second finger device does not interfere with **the paper guide**." (emphasis added). This appears to be inaccurate. Rather, it appears that (1) the second portion of the knock-up plate is an open portion so that up and down movement of the second finger device **does not interfere with the knock-up plate and/or** (2) the second portion of the knock-up plate is an open portion, and the second finger device is connected to the paper guide and fits into the second portion of the knock-up plate so that the second finger device **does not interfere with sliding of the**

**paper guide** on the knock-up plate. In either case, claim 32 appears to be inaccurate as currently written.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 24, 26 and 32, as best understood, are rejected under 35

U.S.C. 102(b) as being anticipated by Japanese Publication No. 58-17028.

Regarding independent claim 24, Fig. 2 shows a paper feeding apparatus of an image forming apparatus (English Abstract) having a frame (4), a knock-up plate (1) movably mounted on the frame (4), and a pickup roller (R) picking up a sheet of paper disposed on the knock-up plate (1), the paper feeding apparatus having

a first finger device (7a) movably disposed (move side to side) on a first portion of the knock-up plate (1) to contact a first end of the paper; and

a second finger device (7) movably disposed (move side to side) on a second portion of the knock-up plate (1) to contact a second end of the paper,

wherein the first and second finger devices (7a and 7) move independently from each other (i.e., one finger device (7a) moves from side to side independently of the other finger device (7)). See e.g., side-to-side arrows in Fig. 2.

Regarding claim 26, Fig. 2 shows that the knock-up plate (1) has first and second sides disposed opposite to each other with respect to a paper feeding direction.

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Regarding claim 32, as best understood, Fig. 2 shows a paper guide (including 21) slidably supported on the knock-up plate (1), wherein the second portion of the knock-up plate (1) (i.e., the portion of knock-up plate (1) into which elements 6 and 7 slide from side to side) is an open portion so that the movement of the second finger device (7) does not interfere with the paper guide (including 21). Thus, Japanese Publication No. 58-17028 meets the limitations of claim 32.

Alternatively, it is noted that in the recitation "wherein the second portion of the knock-up plate is an open portion **so that the movement of the second finger device does not interfere with the paper guide**", the bolded portion of this recitation need **not** be given any patentable weight in view of MPEP, section 2114. Specifically, MPEP, section 2114 states that, "While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function." See MPEP, section 2114. Thus, Japanese Publication No. 58-17028 meets the limitations of claim 32.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 16-18, 24 and 26-31, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art FIG. 1 of the instant application in view of U.S. Patent No. 4,786,042 (Stemmle).

Regarding independent claim 16, applicant's admitted prior art FIG. 1 shows a paper feeding apparatus of an image forming apparatus having a frame (10), a knock-up plate (11) movably mounted on the frame (10), and a pickup roller (22) for picking up a sheet of paper arranged in a stack of sheets of paper disposed on the knock-up plate (11), including a paper setting unit (30),

wherein the paper setting unit (30) has

a knock-up plate raising/lowering portion (12) for raising and lowering the knock-up plate (11) with respect to the pickup roller (22),

a first finger device (14) disposed on the knock-up plate raising/lowering portion (12) to contact a first corner of a leading end of a topmost sheet of paper (see also numbered paragraph [0006] of the Description of the Related Art section of the instant application),

a paper guide (25) slidably disposed on the knock-up plate (11) to guide the sheet of paper in accordance with a paper size. However, applicant's admitted prior art FIG. 1 does not specifically show a second finger device portion, as claimed.

Regarding independent claim 24, applicant's admitted prior art FIG. 1 shows a paper feeding apparatus of an image forming apparatus having a frame (10), a knock-up plate (11) movably mounted on the frame (10), and a pickup roller (22) picking up a sheet of paper disposed on the knock-up plate (11), the paper feeding apparatus having

a first finger device (14) movably disposed on a first portion of the knock-up plate (11) to contact a first end (i.e., leading end) of the paper. However, applicant's admitted prior art FIG. 1 does not specifically show a second finger device, as claimed.

With regard to independent claims 16 and 24, the Stemmler patent discloses that it is well known to provide a paper handling device with two corner snubbers (i.e., two finger devices 40 and 40) that are arranged such that a first one of the finger devices (40) is provided on one corner of a leading edge of a stack of sheets and the second finger device (40) is provided on a movable guide (28), so as to contact another corner of the leading edge of the stack of sheets. See, e.g., Figs. 1, 3 and 4 of the Stemmler patent. Stemmler explains that the corner snubbers (first and second finger devices) are arranged to ride on the corners of the stack of sheets to inhibit forward motion of the corners of the sheets when the sheet is fed in the forward position. See, e.g., column 6, line 62 to column 7, line 1. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the movable guide (25) of the apparatus shown in applicant's admitted prior art FIG. 1 with a second corner snubber (i.e., a second finger device) so that forward motion of both corners of the leading end of the sheets is inhibited when the sheets are fed in the forward position, as taught by the Stemmler patent. Providing the apparatus shown in applicant's admitted prior art FIG. 1 with a second corner snubber (second finger device), in a manner as taught by Stemmler, will result in the second finger device being movably disposed on the paper guide (25) of the apparatus shown in applicant's admitted prior art FIG. 1 to contact a second corner of the leading end of the topmost sheet of paper. Providing the second

finger device on the guide (25) will also result in the second finger device being movably disposed on a second portion of the knock-up plate (11) of the apparatus shown in applicant's admitted prior art FIG. 1. In addition, providing the apparatus shown in applicant's admitted prior art FIG. 1 with a second corner snubber (second finger device), in a manner as taught by Stemmler, will result in the second finger device being movable independently from the first finger device (14). Thus, applicant's admitted prior art FIG. 1 in view of the Stemmler patent discloses all of the limitations of independent claims 16 and 24.

Regarding claim 17, providing the apparatus shown in applicant's admitted prior art FIG. 1 with a second corner snubber (second finger device), in a manner as taught by Stemmler, will result in the first finger device (14) being disposed opposite to the second finger device with respect to the sheet of paper.

Regarding claim 18, applicant's admitted prior art FIG. 1 shows that the frame (10) has a side on which the knock-up plate raising/lowering portion (12) is rotatably disposed, and the paper guide (25) moves toward or away from the side according to the size of the sheet of paper.

Regarding claim 26, applicant's admitted prior art FIG. 1 shows that the knock-up plate (11) has first and second sides disposed opposite to each other with respect to a paper feeding direction.



Regarding claim 27, applicant's admitted prior art FIG. 1 shows a knock-up plate raising/lowering portion (12) moving with respect to the frame (10) to raise and lower the knock-up plate (11) with respect to the pickup roller (22).

Regarding claim 28, applicant's admitted prior art FIG. 1 shows that the first finger device (14) moves according to a movement of the knock-up plate raising/lowering portion (12).

Regarding claim 29, applicant's admitted prior art FIG. 1 shows a paper guide (25) slidably disposed on the knock-up plate (11) to move toward and away from the knock-up plate raising/lowering portion (12) according to a size of the paper disposed between the paper guide (25) and a side of the knock-up plate (11).

Regarding claim 30, applicant's admitted prior art FIG. 1 shows that the knock-up plate raising/lowering portion (12) moves in a first direction, and the paper guide (25) moves in a second direction perpendicular to the first direction.

Regarding claim 31, applicant's admitted prior art FIG. 1 shows that the first finger device (14) moves in the first direction. Providing the second finger device on the guide (25) of the apparatus shown in applicant's admitted prior art FIG. 1, in a manner as taught by the Stemmler patent, will result in the second finger device pivoting up and down in the first direction, and also moving together with the guide (i.e., guide 25 in applicant's admitted prior art FIG. 1) in the second direction.

***Response to Arguments***

5. Applicant's arguments filed 01/29/2007 have been fully considered but they are not persuasive.

Applicant argues that

In contrast to the Examiner's assertions, it is respectfully submitted that it is well established that a proposed combination that creates an inoperable reference teaches away from combination. See, for example, *McGinley v. Franklin Sports Inc.*, 262 F.3d 1339, 60 USPQ2d 1001 (Fed. Cir. 2001). Briefly, when the Examiner proposes a combination that makes a prior art reference inoperable for its intended purpose, the resulting inoperable prior art reference may be considered to teach away from the proposed combination, i.e., not to teach the combination, thereby supporting a showing of nonobviousness.

Independent claims 16 and 24 recite first and second finger devices that move independently from each other. The APA does not discuss a second finger device. In Stemmler, the snubbers 40 (corresponding to the first and second finger devices of claims 16 and 24) are attached to the end of arms 36 on guides 28, 31. The components of Stemmler such as the side edge sheet guide 28, rear edge sheet guide 29, bottom plates 50 and 49, cam slots 51 and 52, and the locating pins 53 and 54 move in conjunction with each other according to the positions of the arm ends 45 and 44, including the snubbers 40 which are additionally checked in the vertical direction by stop members 39 on the snubber arms 36. By incorporating the independent paper setting unit 30 discussed in the APA with the adjustable size sensing cassette of Stemmler, an inoperable reference would be created. As such, it is respectfully submitted that claims 16 and 24 are not obvious over the APA and Stemmler.

The examiner disagrees. In response to applicant's argument that, "By incorporating the independent paper setting unit 30 discussed in the APA with the adjustable size sensing cassette of Stemmler, an inoperable reference would be created", it has been held that the test for obviousness is not whether the features of one reference may be bodily incorporated into the other to produce the claimed subject matter but simply what the combination of references makes obvious to one of ordinary skill in the pertinent art. *In re Bozek*, 163 USPQ 545 (CCPA 1969).

With this in mind, applicant's admitted prior art FIG. 1 of the instant application teaches all of the claimed features of independent claims 16 and 24, except for a second finger device. Then, Stemmler provides a general teaching that it is well known to provide a paper handling device with two corner snubbers (i.e., two finger devices 40 and 40) with one of the finger devices (40) provided on one corner of a leading edge of a stack of sheets and the other finger device (40) **provided on a movable guide (28)** to contact another corner of the leading edge of the stack of sheets and inhibit forward motion of the corners of the sheets when the sheet is fed in the forward position. See, e.g., column 6, line 62 to column 7, line 1 and Figs. 1, 3 and 4 of Stemmler. Since applicant's admitted prior art FIG. 1 already has one finger device (14) located on one corner of a leading edge of a stack of sheets, it would be obvious to one of ordinary skill in the art at the time the invention was made to provide a second finger device on the movable guide (25) of applicant's admitted prior art FIG. 1, because this would position the second finger device in contact with the other corner of the leading edge of the stack of sheets to inhibit forward motion of the corners of the sheets when the sheet is fed in the forward position, as taught by and shown in Stemmler. There is no requirement for all of the mechanisms of Stemmler to somehow be bodily incorporated into the apparatus shown in applicant's admitted prior art FIG. 1 of the instant application. Rather, the teachings of Stemmler provide motivation for having two finger devices, with one of such finger devices located on a movable guide. As mentioned above, it has been held that the test for obviousness is not whether the features of one reference may be bodily incorporated into the other to produce the claimed subject matter but simply

what the combination of references makes obvious to one of ordinary skill in the pertinent art. *In re Bozek*, 163 USPQ 545 (CCPA 1969).

**Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

03/06/2007

  
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